

Power module - MINI-PS- 10- 42AC/15-60DC/3 - 2320199

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To supply MINI DC/DC converters, the AC voltage of a transformer is rectified and filtered.

Product Description

The AC/DC converter converts the AC voltage from 10 V DC ... 42 V AC to a 15 V DC ... 60 V DC output voltage. With an overall width of just 22.5 mm, the housing is particularly narrow.

Product Features

- Enables the operation of the MINI DC/DC converters in an AC network.
- AC voltage of a transformer is rectified and filtered



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 577731
Weight per Piece (excluding packing)	160.0 g
Custom tariff number	85044030
Country of origin	China

Technical data

Dimensions

Width	22.5 mm
Height	99 mm
Depth	107 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C (> 60 °C Derating: 2,5 %/K)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	≤ 95 % (at 25 °C, non-condensing)
Noise immunity	EN 61000-6-2:2005

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Input data

Nominal input voltage	24 V AC
Nominal input voltage range	10 V AC ... 42 V AC
Input voltage range	10 V AC ... 42 V AC
AC frequency range	45 Hz ... 65 Hz
Current consumption	6.5 A
Inrush surge current	< 45 A (typical)
Choice of suitable circuit breakers	16 A (Characteristic C)

Output data

Nominal output voltage	28 V DC $\pm 1\%$
	60 V DC
Output voltage range	15 V DC ... 60 V DC
Nominal output current (I_N)	3 A (-25 °C ... 60 °C)
Derating	60 °C ... 70 °C (2.5%/K)
Connection in series	No
Residual ripple	< 3.6 V _{PP}
Maximum power dissipation in no-load condition	< 0.04 W
Power loss nominal load max.	< 6.9 W

General

Net weight	0.16 kg
Efficiency	> 95.7 % (For 42 V AC and nominal values)
Insulation voltage input/output	1.5 kV (type test)
	1 kV (routine test)
Protection class	III
MTBF (IEC 61709, SN 29500)	> 18175000 h (40°C)
Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	Can be aligned: Horizontally 0 mm, vertically 50 mm

Connection data, input

Connection method	Pluggable screw connection
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Stripping length	7 mm
Screw thread	M3

Connection data, output

Connection method	Pluggable screw connection
Conductor cross section solid min.	0.2 mm ²

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Connection data, output

Conductor cross section solid max.	2.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Stripping length	7 mm
Screw thread	M3

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Shock	30g in each direction, according to IEC 60068-2-27
Noise emission	EN 55011 (EN 55022)
Noise immunity	EN 61000-6-2:2005
Connection in acc. with standard	CUL
Standards/regulations	EN 61000-4-3
	EN 61000-4-4
Standard - Electrical safety	EN 60950-1/VDE 0805 (SELV)
Standard – Electronic equipment for use in electrical power installations and their assembly into electrical power installations	EN 50178/VDE 0160 (PELV)
UL approvals	UL/C-UL listed UL 508
	UL/C-UL Recognized UL 60950
Vibration (operation)	< 15 Hz, amplitude ±2.5 mm (according to IEC 60068-2-6)
Low Voltage Directive	Conformance with LV directive 2006/95/EC
Rail applications	EN 50121-4

Classifications

eCl@ss

eCl@ss 4.0	27040702
eCl@ss 4.1	27040702
eCl@ss 5.0	27049002
eCl@ss 5.1	27049002
eCl@ss 6.0	27049002
eCl@ss 7.0	27049002
eCl@ss 8.0	27049002
eCl@ss 9.0	27040701

ETIM

ETIM 3.0	EC001039
ETIM 4.0	EC000599
ETIM 5.0	EC002046

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Classifications

UNSPSC

UNSPSC 6.01	30211502
UNSPSC 7.0901	39121004
UNSPSC 11	39121004
UNSPSC 12.01	39121004
UNSPSC 13.2	39121004

Approvals

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UL Recognized / UL Listed / cUL Recognized / cUL Listed / IECEx CB Scheme / EAC / EAC / cULus Recognized / cULus Listed

Ex Approvals

Approvals submitted

Approval details

UL Recognized 

UL Listed 

cUL Recognized 

cUL Listed 

IECEx CB Scheme 

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Approvals

EAC

EAC

cULus Recognized 

cULus Listed 

Drawings

Block diagram

